时间参量法**: II.** 简单级数反应的热谱面积差法

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摘要　　从简单级数反应的热动力学方程出发,将时间作为已知参量,提出了一种新的热动力学研究法---简单级数反应的热谱面积差法。该法不需反应进行到底便可求解化学反应的速率常数。实验结果验证了方法的正确性。

关键词　　化学动力学　化学热力学　热谱面积差法　时间参数　化学反应　速率

分类号　0642

Time parameter method II. Thermogram-area-difference method for determination of rate constants for simple order reactions

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Abstract On the theoretical basis of thermokinetics, a novel method for determination of rate constants for simple order reactions-thermogram- area-difference method has been proposed in this paper. In order to test the validity of this method, the saponification of ethyl butyrate and ethyl benzoate in aqeous ethanol solvent and the formation of hexamethylene tetramine in aqueous solution have been examined. The rate constants calculated by this method are in agreement with those published in the literature, and therefore the thermogram-area-difference method is believed to be correct.

Key words CHEMICAL KINETICS　CHEMICAL THERMODYNAMICS　TIME QUANTITIES　CHEMICAL REACTION RATE

DOI:

通讯作者